

**REMARKS**

Claims 1-15 are all the claims currently pending in the present Application.

**Withdrawn Claims**

Claims 6-12 are withdrawn pursuant to the Examiner's indication of Restriction Requirement (Office Action, p. 2), and further indication of an effective election of claims 1-5 and 13-15.

**Claim Rejections under 35 U.S.C. § 112, second paragraph and 35 U.S.C. § 101**

As a preliminary matter, Applicants note that the Examiner appears to confuse a §112, second paragraph rejection with a §101 rejection.

The Examiner indicates that claims 1-5 and 13-15 are rejected under 35 U.S.C. § 112, second paragraph, indicating that these claims are “indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.” (Office Action, p. 3) However, the Examiner then indicates that “the bodies of the claims are not positively supportive of such desired utility purpose as a useful, concrete and tangible result that includes a physical transformation in the real world of statutory required nature.” (p. 3)

Applicants will address the §112, second paragraph and §101 issues separately.

**35 U.S.C. § 112**

35 U.S.C. § 112, second paragraph<sup>1</sup> sets forth two separate requirements: first, “the claims must set forth the subject matter that applicants regard as their invention;” and second,

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<sup>1</sup> “The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.”

“the claims must particularly point out and distinctly define the metes and bounds of the subject matter that will be protected by the patent grant.” (MPEP §2171)

Regarding the first requirement of §112, second paragraph, “A rejection based on the failure to satisfy this requirement is appropriate only where applicant has stated, somewhere other than in the application as filed, that the invention is something different from what is defined by the claims. In other words, the invention set forth in the claims must be presumed, in the absence of evidence to the contrary, to be that which applicants regard as their invention.” (MPEP 2172 (I)<sup>2</sup>) In the case of the present Application, Applicants have not stated, anywhere, at any time, that the invention is something different from what is defined by the claims. Therefore, no rejection of the claims under the first requirement of §112, second paragraph is appropriate.

Regarding the second requirement of §112, second paragraph, “A primary purpose of this requirement of definiteness of claim language is to ensure that the scope of the claims is clear so the public is informed of the boundaries of what constitutes infringement of the patent.” (MPEP 2173) The Examiner appears to assert that this requirement is not met by the claims: “The claims therefore appear to be incomplete, and indefinite how and when the earthquake prediction desired result is met as a real world physical tangible transformation.” (p. 4) Regarding the Examiner’s apparent concern with how the “earthquake prediction desired result” is met, Applicants note that independent claim 1 (from which claims 2-5 and 13-15 depend) *clearly* recites steps of observing magnetic field vectors, estimating telluric current induction field vectors, collating and comparing a change over time, and “*estimating a seismofocal zone, time of*

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<sup>2</sup> citing *In re Moore*, 439 F.2d 1232, 169 USPQ 236 (CCPA 1971).

*occurrence, and seismic intensity of a seismic event based on the comparison.*" Thus, noting that one of skill in the art would understand that an earthquake is a seismic event, this claim clearly sets forth how the "desired result" of earthquake prediction is achieved. Additionally, the Examiner asserts that "the necessary end result lacks support." (p. 4) With this comment, it appears that the Examiner is making a §112, first paragraph rejection under written description<sup>3</sup>. Further, it is unclear what the Examiner is referring to as the "necessary end result." However, if the Examiner is referring to the last step in claim 1<sup>4</sup>, Applicants note that this limitation is fully and clearly supported in the originally-filed specification at least at the paragraph beginning at page 2, line 22.

Therefore, Applicants submit that no rejection of the claims under the second requirement of §112, second paragraph is appropriate, and further, that no rejection under 35 U.S.C. § 112, first paragraph is appropriate.

Applicants respectfully request that the Examiner withdraw the rejection of claims 1-5 and 13-15 under 35 U.S.C. § 112, second paragraph or fully and clearly explain the basis of the rejection based on the statute and the MPEP.

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<sup>3</sup> 35 U.S.C. § 112, first paragraph recites: "the specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same, and shall set forth the best mode contemplated by the inventor of carrying out his invention."

<sup>4</sup> "estimating a seismofocal zone, time of occurrence, and seismic intensity of a seismic event based on the comparison"

**35 U.S.C. § 101**

35 U.S.C. § 101 tells us: “Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.”

Regarding 35 U.S.C. § 101, the Examiner tells us: “Because the necessary end result lacks support, the claims are further incomplete and indefinite how they meet the statutory criteria for 101.” (p. 4) The Examiner also asserts: “the claimed invention is directed to non-statutory subject matter and the claimed invention lacks patentable utility.” (p. 4) The Examiner further asserts: “The claims do not recite any requirement of computer implementation. However, even if there were such claimed basis, they would still fail to meet the latest Guidelines criteria for having such statutory basis. All claims fail to meet the minimal requirement of a useful, concrete, and tangible result of a real physical world interactive end result supported by any algorithm steps, or structure supporting such calculated step, where the end result limitation/data supports the invention of predicting an earthquake.” (p. 4-5)

Regarding the Examiner’s assertion of a lack of support, Applicants refer to the above discussion of 35 U.S.C. § 112, first paragraph. Regarding the Examiner’s assertion of non-statutory subject matter and lack of utility, Applicants address these issues below. Regarding the Examiner’s comments regarding computer related inventions, Applicants refer to the remarks set forth at pages 13-14 of the Amendment filed November 29, 2006, incorporated herein by reference. As in the previous Office Action<sup>5</sup>, the Examiner admits that the claims are not directed

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<sup>5</sup> June 30, 2006.

to a computer related invention, but nonetheless, he rejects them for failing to meet the Examination Guidelines for Computer-Related Inventions (the “Guidelines”). Applicants therefore again submit that *the claims of the present invention are not directed to a computer-related invention*. Applicants respectfully request that the Examiner cease applying Examination Guidelines for Computer-Related Inventions to the claims of the present invention or that the Examiner provide a clear explanation of how the claims of the present invention are interpreted as computer-related claims.

Herein below, Applicants address the patentability of claims 1-5 and 13-15 under 35 U.S.C. § 101, as interpreted a guided by the Guidelines as set forth in MPEP §2106 and §2107.

Regarding the utility of the invention as set forth in claims 1-5 and 13-15, Applicants submit that the claimed invention is directed to the useful result of predicting earthquakes, as discussed at least in the first paragraph of the specification. ‘The claimed invention as a whole must be useful and accomplish a practical application.’ (MPEP §2106 (II)(A)) “Regardless of the form of the statement of utility, it must enable one ordinarily skilled in the art to understand why the applicant believes the claimed invention is useful.” (MPEP §2106 (II)(A)) MPEP §2106 (II)(A) further guides an Examiner to MPEP §2107 for utility examination guidelines.<sup>6</sup>

MPEP §2107 (II)(A)(3) issues instructions to Examiners: “If at any time during the examination, it becomes readily apparent that the claimed invention has a well-established utility, do not impose a rejection based on lack of utility. An invention has a well-established utility if (i) a person of ordinary skill in the art would immediately appreciate why the invention

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<sup>6</sup> “See MPEP §2107 for utility examination guidelines”

is useful based on the characteristics of the invention (e.g. properties or applications of a product or process), and (ii) the utility is specific, substantial, and credible.” Applicants submit that anyone living in the city of San Francisco or the Japanese archipelago, or any person of skill in the art, would immediately recognize the specific, substantial, and credible utility of earthquake prediction, as explained at least in the paragraph beginning at page 1, line 10 of the specification. Therefore, Applicants submit that any rejection of the claims for a lack of utility under 35 U.S.C. § 101 is improper.

In addition to the above-discussed specific, substantial, and credible utility, Applicants also submit that the claims of the present invention recite a process, machine, manufacture or composition of matter under the requirements of 35 U.S.C. § 101. Applicants submit that claims 1-5 and 13-15 are directed to a process under §101. As noted above, the Examiner maligns the status of claims 1-5 and 13-15 under the tangible prong of the “useful, concrete, and tangible result” test. Applicants thus assume that the Examiner intends to assert that the claims are directed to an abstract idea, law of nature, or natural phenomenon and does not fall under a practical application thereof under MPEP 2106 (IV)(C)(2)<sup>7</sup>.

Regarding this “tangible” requirement, Applicants note that “the tangible requirement does not necessarily mean that a claim must either be tied to a particular machine or apparatus or must operate to change articles or materials to a different state or thing.” (MPEP §2106 (IV)(C)(2)(b)) “[T]he opposite meaning of ‘tangible’ is ‘abstract’”. (Id.) Applicants submit

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<sup>7</sup> “A claimed invention is directed to a practical application of a 35 U.S.C. § 101 judicial exception when it: (A) ‘transforms’ an article or physical object to a different state or thing; or (B) otherwise produces a *useful, concrete, and tangible* result based on the factors discussed below.”

that the result of the claimed process is, in no way, abstract. The result is a concrete prediction of a seismofocal zone, a time of occurrence, and seismic intensity of a seismic event, as recited. Therefore, Applicants submit that the “tangible” requirement is clearly met by the claims of the present invention.

Based on the above, Applicants again submit that the §101 rejection of claims 1-5 and 13-15 is improper and respectfully request that the rejection be reconsidered and withdrawn or that the Examiner fully and clearly explain the basis of the rejection based on the statute and the MPEP, without mis-applying the Examination Guidelines for Computer-Related Inventions.

**Conclusion**

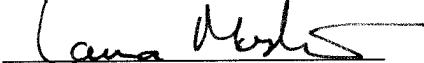
In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned attorney at the telephone number listed below.

**RESPONSE UNDER 37 C.F.R. § 1.116**  
U.S. Application No. 10/529,757

**Q87211**

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,

  
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